

ABSTRACT OF THE DISCLOSURE

Disclosed is an illumination optical system  
for illuminating a surface, to be illuminated, with  
use of light from a light source, which includes a  
5 diffractive optical element for forming a desired  
light intensity distribution upon a predetermined  
plane, and an angular distribution transforming unit  
for transforming an angular distribution of light  
incident or to be incident on the diffractive optical  
10 element into a desired distribution.

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